

Application No.: 10/024,908

Docket No.: SUNDS 3.0-127

IN THE CLAIMS

1. (canceled)

2. (currently amended) Apparatus for binding bales with wire comprising feed means for feeding and tightening said wire, a guide for guiding said wire fed by said feed means around said bale, wire processing means for cutting, tightening and twisting the ends of said wire, a take-up unit for taking up a slack loop in said wire created by said tightening of said wire, and a spring-loaded feed means assembly disposed upstream of said feed means with respect to said bale for damping motion in said wire upon taking up of said slack loop by continued feeding of said wire;

said spring assembly comprising a wire guide block, at least one guide roller rotatably mounted on said wire guide block, and a spring which applies a force to said wire guide block to urge said wire guide block to a maximum forward position;

wherein the wire has a taut condition in which the wire is in contact with said at least one guide roller and a slack condition in which the wire is no longer in contact with said at least one guide roller even when said guide block is at the maximum forward position.

3-7. (canceled)

8. (new) The apparatus of claim 2, further comprising a wire feed pulley, said wire feed pulley rotating in a first direction to place the wire in said taut condition and a second direction to place the wire in said slack condition.

9. (new) The apparatus of claim 8, wherein said wire feed pulley is powered by a reversible motor.

10. (new) The apparatus of claim 8, further comprising at least one pressure roller urging the wire against said wire feed pulley.

Application No.: 10/024,908

Docket No.: SUNDS 3.0-127

11. (new) The apparatus of claim 8, wherein said spring cooperates with said guide block so said guide block is moved against said spring to a minimum forward position upon movement of said wire feed pulley in said first direction to cushion the wire during its transition from said slack condition to said taut condition.
12. (new) The apparatus of claim 11, wherein said wire maintains a feed rate of approximately 4.5 m/s during its transition from said slack condition to said taut condition.
13. (new) The apparatus of claim 11, wherein said at least one guide roller comprises three guide rollers, wherein all three of said guide rollers are in contact with the wire when the wire is in the taut condition and less than all of said guide rollers are in contact with the wire when the wire is in the slack condition.
14. (new) The apparatus of claim 11, further comprising a change of direction pulley downstream of said wire guide block, wherein the wire contacting said change of direction pulley is stationary when the wire is in said slack condition.
15. (new) The apparatus of claim 14, wherein the wire remains stationary along said change of direction pulley during the transition from said slack condition to said taut condition.
16. (new) The apparatus of claim 14, wherein the wire remains stationary along said change of direction pulley during the transition from said taut condition to said slack condition.
17. (new) The apparatus of claim 2, further comprising at least one change of direction pulley for altering the direction of travel of the wire.
18. (new) The apparatus of claim 2, wherein said block is slideably mounted on a fixed guide pin and the spring is disposed about said guide pin.

Application No.: 10/024,908

Docket No.: SUNDS 3.0-127

19. (new) The apparatus of claim 11, wherein said block is slideably mounted on a fixed guide pin and the spring is disposed about said guide pin.